

AMENDMENTS TO THE CLAIMS

Claims 1-10 (canceled)

- 5 Claim 11 (previously presented): A hetero-junction bipolar junction transistor (HBT) comprising:
- a substrate;
 - a dielectric layer formed on a predetermined region of the substrate;
 - 10 an opening formed in the dielectric layer, and a portion of the substrate being exposed;
 - a SiGe epitaxial layer formed on a sidewall and a bottom of the opening, and extending outside the opening and above the dielectric layer;
 - 15 a spacer formed on the SiGe epitaxial layer to define a self-aligned emitter region in the opening; and
 - an emitter conductivity layer being filled into the self-aligned emitter region, and a PN junction
 - 20 being formed between the emitter conductivity layer and the SiGe epitaxial layer.

Claim 12 (original): The hetero-junction bipolar junction transistor of claim 11 wherein the substrate

25 is a silicon substrate.

Claim 13 (original): The hetero-junction bipolar junction transistor of claim 11 wherein the substrate is a non-selective epitaxial silicon substrate.

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Claim 14 (original): The hetero-junction bipolar junction transistor of claim 11 further comprising a

self-aligned silicide (salicide) layer formed on the emitter conductivity layer.

5 Claim 15 (original): The hetero-junction bipolar junction transistor of claim 11 further comprising a selective implant collector (SIC) region formed in the substrate beneath the SiGe epitaxial layer.

Claims 16-17 (canceled)

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